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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,217	05/22/2007	Gyung-pyo Hong	Q95214	9722
23373 7590 03/31/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER SAINT CYR, JEAN D	
			ART UNIT 2425	PAPER NUMBER
			MAIL DATE 03/31/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/584,217

**Applicant(s)**

HONG, GYUNG-PYO

**Examiner**

JEAN D. SAINT CYR

**Art Unit**

2425

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **35 U.S.C. 112, First Paragraph**

Claims 1 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "disclose while a user watches a first channel of a broadcast stream, extracts broadcast application data corresponding to a second channel of the broadcast stream" is not supported by the specification.

### **Response to Amendment**

This action is in response to applicant's amendment filed on 12/19/2009. Claims 1-12 are still pending in the current application. **This action is made FINAL.**

### **Response to Arguments**

Applicant's arguments were fully considered, but they were not persuasive. Applicant argues that the cited references did not disclose while a user watches a first channel of a broadcast stream, extracts broadcast application data corresponding to a second channel of the broadcast stream from the broadcast stream.

However, Chan et al disclose smart and adaptive software performs a channel prediction to setup spare tuning and decoding resources to tune to a potential channel the subscriber might next select. The present invention utilizes a prediction algorithm to guess the next channel a subscriber may tune to such that the STB can anticipate the subscriber's request and provide a faster response time for channel tuning and decoding. That means the system use spare tuners to extract broadcast application corresponding to other channels while the user is watching a currently tuned channel. As described by the applicant in paragraph 0020, the system uses an available tuner to extract broadcast application of the second channel while the user is watching the first channel. Also, Claim 3 recites that the broadcast application corresponding to the second channel is provided to the user by at least one tuner that is not used currently. Finally, the term "while a user watches a first channel of a broadcast stream, extracts

broadcast application data corresponding to a second channel of the broadcast stream from the broadcast stream" is not supported by the specification. As a result, this action is made final.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gebhardt et al in view of Chan et al, US No. 6927806.

Re claim 1, Gebhardt et al disclose a data filter which(The BR 120 also includes a data extractor 206 coupled to the tuner 202 for extracting the interactive application from the broadcast data 117, col.12, lines 49-50),

a data storage unit which stores the extracted broadcast application data(The bus 208 is coupled to a microprocessor 210 which stores, via the bus 208, the extracted interactive application into a first storage device 212 as instructed by a program stored in a second storage device 214, col.12, lines 56-59); and

an application execution unit which, if the user watches the second channel, fetches the broadcast application data corresponding to the second channel from the data storage unit(microprocessor 210 uses the program stored in the second storage device 214 and the interactive application stored in the first storage device 212 to execute the interactive application and provide an output, col13, lines 14-17) in response to an

application execution command to execute a broadcast application corresponding to the second channel input by the user(output from executing an interactive application may be, for example, a form presenting information or a menu to a television viewer or for receiving viewer input, col.13, lines 29-31),and.

But Gebhardt et al disclose while a user watches a first channel of a broadcast stream, extracts broadcast application data corresponding to a second channel of the broadcast stream from the broadcast stream ; which executes the broadcast application corresponding to the second channel using the fetched broadcast application data.

However, Chan et al disclose smart and adaptive software performs a channel prediction to setup spare tuning and decoding resources to tune to a potential channel the subscriber might next select. The present invention utilizes a prediction algorithm to guess the next channel a subscriber may tune to such that the STB can anticipate the subscriber's request and provide a faster response time for channel tuning and decoding in col.2, lines 7-13).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Gebhardt with the invention of Chan for of predicting the next channel easily.

Re claim 2, Gebhardt et al disclose wherein the broadcast application corresponding to the second channel is directly selected by the user(for receiving viewer input).

Re claim 3, Gebhardt et al did not disclose wherein the broadcast application corresponding to the second channel is comprised in the broadcast stream that can be provided to the user by at least one tuner that is not used currently.

However, Chan et al disclose because the STB of the present invention can identify the subscriber's channel tuning pattern the STB can avoid the time normally required to tune to a next channel by having spare system resources perform the tuning and decoding task in advance in anticipation of the channel tune(col.2, lines 21-25).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the two inventions for the benefit of limiting latency in selecting channels.

Re claim 4, Gebhardt et al did not disclose wherein the broadcast application corresponding to the second channel is selected based on user information indicating how much the user favors each channel of the broadcast stream.

However, Chan et al disclose the channel prediction logic of the present invention may continuously use system resources to tune to channels frequented by a subscriber based upon past history, to channels located on a subscriber favorite list( col.2, lines 41-45).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Gebhardt with the invention of Chan for the purpose of using the profile of the users to predict the second channel.

Re claim 5, Gebhardt et al did not explicitly disclose, wherein the user information comprises the number of times the broadcast application corresponding to a channel of the broadcast stream has been executed.

However, Chan et al disclose what channels the subscriber has tuned the most in terms of frequency and duration, col.11, lines 35-37; that means the system can verify

how often and how much time that the user tune to a specific channel from the past and uses that information for getting broadcast application.

It would have been obvious for any person of ordinary skill in the art at that time the invention was to combine the system of Chan with the system of Gebhardt for benefit of collecting data from the user easily.

Re claim 6, Gebhardt et al did not explicitly disclose, wherein the user information comprises length of time the user executed the broadcast application corresponding to a channel of the broadcast stream.

However, Chan et al disclose prediction evaluation logic 275 gathers the information from subscriber interaction, which includes commands 285 received from the various input devices ,e.g., remote control, keyboard, mouse, etc., and the tuning commands 260 issued by the tuning manager 250, col.13, lines 6-10; if a subscriber does a lot of toggling between the current and last channel, the weight for the last N channels tuned logic 215 would be positively reinforced, col.13, lines 56-59.

It would have been obvious for any person of ordinary skill in the art at that time the invention was to combine the system of Chan with the system of Gebhardt for the purpose of making the system more efficient in pre-fetching broadcast application.

Re claim 7, is met as previously discussed with respect to claim 1.

Re claim 8, is met as previously discussed with respect to claim 2.

Re claim 9, is met as previously discussed with respect to claim 3.

Re claim 10, is met as previously discussed with respect to claim 4.

Re claim 11, is met as previously discussed with respect to claim 5.

Re claim 12, is met as previously discussed with respect to claim 6.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean Duclos Saintcyr/

/Brian T. Pendleton/

Supervisory Patent Examiner, Art Unit 2425